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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: 82-DE-06. Section 18 request for Bayleton
(triadimefon) on cucurbits.

FROM: Richard Loranger, Chemist *R. Loranger*
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

THRU: Charles L. Trichilo, Chief
Residue Chemistry Branch
Hazard Evaluation Division (TS-769) *CT*

TO: Donald Stubbs
Emergency Response Section
Registration Division (TS-767)

and

Toxicology Branch
Hazard Evaluation Division (TS-769)

A Section 18 exemption is requested by the Delaware Dept. of Agriculture for the use of Bayleton 50 WP to control powdery mildew on cucurbits (cantaloupes, watermelons, cucumbers, squash,) and pumpkins). A total of 250-750 lbs ai triadimefon are to be used on 2000 acres from June 1 to October 15.

PP#OE2393 and PP#OF2349 proposing tolerances for residues of Bayleton (1-(4-chlorophenoxy)-3,3-dimethyl-1-(1H-1,2,4-triazol-1-yl)-2-butanone and its metabolite KWG 0519 (β -(4-chlorophenoxy)- α -(1,1-dimethylethyl)-1H-1,2,4-triazol-1-ethanol in or on cucumbers at 0.1 ppm and melons at 0.2 ppm are currently in reject status due to questions concerning analytical methodology.

The proposed use is for 4-6 applications of 0.5-1 oz ai/A by ground (45 gal/A) or aerial (5 gal/A) equipment with a 1 day preharvest interval.

We recently reviewed a similar emergency request from New Jersey (E. Zager, 2/25/82). As noted in that memo we consider the residue of concern to be Bayleton and its metabolite KWG 0519 for the purpose of such an emergency use. Since conjugates of those two components are not expected to exceed 20% of the total residue in cucurbits, the GC method determining only free residues is satisfactory for this Section 18.

Residue data for cucumber and cantaloupes grown in Mexico are summarized below (from PP#'s 0E2393 and 0F2349). The application rates were 1.8 or 1.75 oz ai/A (1.8 or 1.75X). The numbers represent the total of parent plus the KWG0519 metabolite as a function of PHI. Controls were <0.01 ppm for cucumbers and <0.01-0.11 ppm for cantaloupes.

	Total residues (ppm)		
	<u>0 day</u>	<u>5 days</u>	<u>15 days</u>
Cucumbers	<0.01-0.09	<0.01-0.04	<0.01-0.02
Cantaloupes	0.03-0.13	0.05-0.08	0.03-0.11

Based on the above data we estimate that residues of Bayleton plus KWG 0519 will not exceed 0.2 ppm in or on cucurbits from the proposed use (same level recommended for NJ with 1 day PHI).

Since no feed items are involved in this use, there will be no secondary residues in meat, milk, poultry and eggs.

Conclusions

1. Residues of Bayleton and its metabolite KWG 0519 will not exceed 0.2 ppm in or on cucurbits as a result of the proposed use.
2. The proposed use will not lead to secondary residues in meat, milk, poultry and eggs.

Recommendation

TOX considerations permitting, we have no objections to the proposed Section 18 exemptions. An agreement should be made with FDA regarding the legal status of treated cucurbits in commerce.

cc: Section 18 S.F.
R.F.
Circu
Reviewer
Bayleton S.F.

RDI:Section Head:RJH>Date:4/5/82:RDS>Date:4/5/82
TS-769:Reviewer:R.Loranger:LDT:X77324:CM#2:RM:810>Date:4/7/82